What is claimed is:

- 1. A gas chromatograph with a fluid control assembly for controlling flow and pressure of gas, said fluid control assembly comprising:
- 5 a flow path,

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- a control valve situated in the flow path and being capable of adjusting an opening degree thereof,
- a flow resistance provided in the flow path at a downstream side of the control valve,
- differential pressure detecting means attached to the flow path for detecting a differential pressure between two ends of the flow resistance,

pressure detecting means attached to the flow path for detecting pressure on an upstream side or a downstream side of the flow resistance, and

control means attached to the control valve, differential pressure detecting means and pressure detecting means for carrying out a predetermined calculation based on signals from the differential pressure detecting means and the pressure detecting means for controlling the opening degree of the control valve based on a result of the calculation.

- 2. A gas chromatograph according to claim 1, wherein said differential pressure detecting means is a pressure sensor, and said pressure detecting means is a pressure sensor, said pressure sensors being attached to the upstream side and the downstream side of the flow resistance.
- 3. A gas chromatograph according to claim 1, further comprising a bomb for providing a fluid to the flow path, and a sample

introducing part, said fluid control assembly being situated between the bomb and the sample introducing part.